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10/729,247	12/04/2003	Karthik Ranjan	5683P038	1203
7590 04/24/2007 Andre L Marais Schwegman Lundberg Woessner and Kluth P A 1600 TCF Tower 121 South Eighth Street Minneapolis, MN 55402			EXAMINER SIMITOSKI, MICHAEL J	
			ART UNIT 2134	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No. 10/729,247	Applicant(s) RANJAN, KARTHIK	
	Examiner Michael J. Simitoski	Art Unit 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-15 are pending.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Europe on 12/4/2002. It is noted, however, that applicant has not filed a certified copy of the EP02080137 application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Regarding claim 1, the limitation "encoded, encrypted" (line 3) is unclear because it could mean encoded and encrypted, encoded or encrypted or "encrypted" could be further describing "encoded". This is understood to mean encoded and encrypted.
- b. Regarding claim 1, if it unclear if the limitation "in a first format" is describing "encoded", "encrypted" or "received". This is understood to be modifying "received".
- c. Regarding claim 1, the limitations "stream(s)" (line 11), "stream(s)" (line 13) and "terminal(s)" (line 13) are unclear as it is unclear as to whether applicant intends to

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include the plural in these limitations as a requirement or in the alternative. It is understood that the “(s)” could mean singular or plural.

d. Regarding claim 13, the limitations “stream(s)” (line 15), “stream(s)” (line 16) and “terminal(s)” (line 17) are unclear as it is unclear as to whether applicant intends to include the plural in these limitations as a requirement or in the alternative. It is understood that the “(s)” could mean singular or plural

e. Regarding claim 14, the limitations “stream(s)” (line 8), “stream(s)” (line 10) and “terminal(s)” (line 10) are unclear as it is unclear as to whether applicant intends to include the plural in these limitations as a requirement or in the alternative. It is understood that the “(s)” could mean singular or plural

f. Regarding claim 15, the limitations “stream(s)” (line 10), “stream(s)” (line 12) and “terminal(s)” (line 12) are unclear as it is unclear as to whether applicant intends to include the plural in these limitations as a requirement or in the alternative. It is understood that the “(s)” could mean singular or plural

Any claims rejected in this section, but not explicitly discussed, are rejected based on their dependence upon a rejected claim. Further, all consideration for the claims is given as best understood.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2, 9 & 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,138,659 to Kelkar et al. (**Kelkar**).

Regarding claim 1, Kelkar discloses a first network adapter (MAC, Fig. 2, #42) configured to receive a primary data stream in which the information has been encoded (MAC, col. 5, lines 53-55), encrypted according to a key scheme from a primary transmitter (MAC transmitter) through a first network in a first format (MAC, col. 5, lines 40-52), an arrangement (MAC, Fig. 2, #42) configured to receive entitlement messages (access control stream, col. 6, lines 1-2), enabling an authorized receiver to decrypt the encrypted data stream (col. 6, lines 4-12), and at least one further network adapter (PAL component encoder/scrambler/modulator, Fig. 2, ##52-28 & col. 6, lines 15-17) for connection to a secondary network (col. 6, lines 25-27), wherein the terminal is configured to re-transmit at least part of the information in at least one secondary data stream in a secondary format (PAL, col. 5, lines 40-44), differing from the first format (MAC), through the second network to at least one secondary terminal (receiver) connected to the secondary network (col. 6, lines 25-27), wherein the terminal is configured to transmit the secondary data stream(s) encrypted according to the same key scheme (col. 4, lines 50-55, col. 5, lines 54-55 & col. 6, lines 19-24) and to forward received entitlement messages that enable an authorized receiver to decrypt the secondary data stream(s) (access control stream, col. 6, lines 22-24) to the secondary terminal(s) (col. 6, lines 22-24).

Regarding claim 2, Kelkar discloses wherein the terminal is arranged to decrypt the received primary data stream (col. 6, lines 9-12) and to encrypt the secondary data stream(s) according to the key scheme (col. 2, lines 65-67 & col. 5, lines 53-55).

Regarding claim 9, Kelkar discloses wherein the terminal is arranged to receive the primary data stream (MAC data) comprising information encoded in a first format (MAC format, Fig. 2, #42, col. 5, lines 40-52, lines 53-55 & col. 6, lines 1-4), to re-encode the information in a second format (PAL, col. 5, lines 40-44) and to include data comprising the re-encoded information in at least one of the secondary data streams (col. 6, lines 25-27).

Regarding claim 13, Kelkar discloses a primary network (network through which MAC data is traveling, col. 6, lines 1-4), a primary data transmitter (transmitter of MAC data, col. 6, lines 1-4), connected to the primary network and arranged to transmit information encoded in an encrypted primary data stream (MAC format, col. 5, lines 40-52, lines 53-55 & col. 6, lines 1-4), encrypted according to a key scheme (col. 6, lines 9-12), through the primary network in a first format (MAC format, col. 5, lines 40-52, lines 53-55 & col. 6, lines 1-4), an entitlement message transmitter (transmitter of access control stream, col. 6, lines 1-2), arranged to transmit entitlement messages (access control stream) enabling an authorized receiver to decrypt the encrypted data stream (col. 6, lines 1-2), a secondary network (col. 6, lines 25-27), one or more secondary terminals (receivers) connected to the secondary network (col. 6, lines 25-27), and a primary terminal (MAC receiver, Fig. 2, #42), connected to the first and second network (Fig. 2), arranged to receive the encrypted data stream from the primary data transmitter through the first network (col. 6, lines 1-2) and to re-transmit at least part of the information in at least one secondary data stream in a secondary format (PAL, col. 5, lines 40-44), differing from the first format (MAC), through the second network to one or more secondary terminals (receivers) connected to the secondary network (col. 6, lines 25-27), wherein the primary terminal is configured to transmit the secondary data stream(s) encrypted according to the same key scheme

(col. 4, lines 50-55, col. 5, lines 54-55 & col. 6, lines 19-24) and to forward received entitlement messages that enable an authorized receiver to decrypt the secondary data stream(s) (access control stream, col. 6, lines 22-24) to the secondary terminal(s) (col. 6, lines 22-24).

Regarding claim 14, Kelkar discloses receiving information encoded in an encrypted primary data stream encrypted according to a key scheme from a primary transmitter through a primary network in a first format (MAC format, Fig. 2, #42, col. 5, lines 40-52, lines 53-55 & col. 6, lines 1-4), receiving entitlement messages (access control stream), enabling an authorized receiver to decrypt the encrypted data stream (access control stream, col. 6, lines 22-24) and re-transmitting at least part of the information in at least one secondary data stream in a secondary format (PAL, col. 5, lines 40-44), differing from the first format (MAC), through the second network to at least one secondary terminal (receiver) connected to the secondary network (col. 6, lines 25-27), wherein the secondary data stream(s) are transmitted encrypted according to the same key scheme (col. 4, lines 50-55, col. 5, lines 54-55 & col. 6, lines 19-24) and received entitlement messages that enable an authorized receiver to decrypt the secondary data stream(s) (access control stream, col. 6, lines 22-24) are forwarded to the secondary terminal(s) (col. 6, lines 22-24).

Regarding claim 15, Kelkar discloses a machine readable medium storing a set of instructions, that when executed by a machine, cause the machine to execute a method to receive and re-transmit digital data, the method including, receiving information encoded in an encrypted primary data stream encrypted according to a key scheme from a primary transmitter through a primary network in a first format (MAC format, Fig. 2, #42, col. 5, lines 40-52, lines 53-55 & col. 6, lines 1-4), receiving entitlement messages (access control stream), enabling an authorized

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receiver to decrypt the encrypted data stream (access control stream, col. 6, lines 22-24) and re-transmitting at least part of the information in at least one secondary data stream in a secondary format (PAL, col. 5, lines 40-44), differing from the first format (MAC), through the second network to at least one secondary terminal (receiver) connected to the secondary network (col. 6, lines 25-27), wherein the secondary data stream(s) are transmitted encrypted according to the same key scheme (col. 4, lines 50-55, col. 5, lines 54-55 & col. 6, lines 19-24) and received entitlement messages that enable an authorized receiver to decrypt the secondary data stream(s) (access control stream, col. 6, lines 22-24) are forwarded to the secondary terminal(s) (col. 6, lines 22-24).

7. Claims 1-2, 5, 8-9 & 12-15 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 7,120,253 to Ducharme et al. (**Ducharme**).

Regarding claim 1, Ducharme discloses a first network adapter configured to receive a primary data stream (Fig. 2, #25) in which the information has been encoded, encrypted (col. 4, lines 42-43) according to a key scheme from a primary transmitter (service provider) through a first network (Fig. 2, #25) in a first format (first rate, col. 5, lines 14-16), an arrangement (gateway) configured to receive entitlement messages (Fig. 2, #25), enabling an authorized receiver to decrypt the encrypted data stream (col. 4, lines 50-54) and at least one further network adapter for connection to a secondary network (Fig. 2, #35), wherein the terminal (gateway) is configured to re-transmit at least part of the information in at least one secondary data stream in a second format (lower bit rate, col. 5, lines 24-27), differing from the first format, through the second network to at least one secondary terminal (client) connected to the

secondary network (Fig. 2, #35), wherein the terminal is configured to transmit the secondary data stream(s) encrypted according to the same key scheme (col. 5, lines 28-30) and to forward received entitlement messages that enable an authorized receiver to decrypt the secondary data stream(s) to the secondary terminal(s) (col. 5, lines 65-67).

Regarding claim 2, Ducharme discloses wherein the terminal is arranged to decrypt the received primary data stream and to encrypt the secondary data stream(s) according to the key scheme (col. 5, lines 28-30).

Regarding claim 5, Ducharme discloses wherein the terminal is arranged to receive the encrypted primary data stream in a first data packet format (col. 4, lines 16-18), and to transmit at least one of the secondary streams in a second data packet format (MPEG2 to MPEG4, col. 5, lines 24-25).

Regarding claim 8, Ducharme does not explicitly state that addresses are included in the data streams, however, Ducharme discloses the connections being fiber, Ethernet, SONET or other. In such a case as Ethernet, each packet will have its recipients address in the header of each packet, and as such this limitation is inherently disclosed in Ducharme.

Regarding claim 9, Ducharme discloses wherein the terminal is arranged to receive the primary data stream (MPEG2) comprising information encoded in a first format (MPEG2 format, col. 5, lines 24-25), to re-encode the information in a second format (MPEG4, col. 5, lines 24-25) and to include data comprising the re-encoded information in at least one of the secondary data streams (col. 5, lines 41-42).

Regarding claim 12, Ducharme discloses receiving a plurality of different entitlement messages (EMMs, col. 6, lines 23-24), each enabling an authorized receiver to decrypt an

encrypted data stream encrypted according to the key scheme (col. 2, lines 61-62), wherein each entitlement message comprises a specification of at least one terminal (gateway or client, col. 2, lines 65-67), wherein the terminal (gateway) is arranged to forward to a secondary terminal (client) only those entitlement messages comprising a specification to which the secondary terminal conforms (col. 6, lines 14-16).

Regarding claims 13, 14 & 15, the claims are substantially equivalent to claim 1 and are therefore rejected under similar rationale.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3 & 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ducharme, as applied to claims 2 & 5 above, in further view of U.S. Patent Application Publication 2002/0150248 to **Kovacevic**.

Regarding claim 3, Ducharme lacks de-multiplexing a decrypted stream, but does disclose modifying the video compression (col. 5, lines 24-25). However, Kovacevic teaches that video data is often transmitted in transport streams, where the transport stream is decrypted and then de-multiplexed to generate individual packetized elementary streams (PES) (¶29). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ducharme to de-multiplex a decrypted data stream comprising

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multiple elementary data streams (one being video) and to re-transmit information encoded in a subset of the elementary data streams (to re-transmit the data). One of ordinary skill in the art would have been motivated to perform such a modification to realize Ducharme's feature of modifying the compression type of the video portion of the transport stream, as taught by Kovacevic (§29).

Regarding claim 7, Ducharme lacks de-multiplexing a decrypted stream, but does disclose modifying the video compression (col. 5, lines 24-25). However, Kovacevic teaches that video data is often transmitted in transport streams, where the transport stream is decrypted and then de-multiplexed to generate individual packetized elementary streams (PES) (§29). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ducharme to de-multiplex a decrypted data stream comprising multiple elementary data streams (one being video) and to re-transmit information encoded in a subset of the elementary data streams (to re-transmit the data). One of ordinary skill in the art would have been motivated to perform such a modification to realize Ducharme's feature of modifying the compression type of the video portion of the transport stream, as taught by Kovacevic (§29).

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ducharme, as applied to claim 5 above, in further view of U.S. Patent Application Publication 2002/0094084 to Wasilewski et al. (**Wasilewski**).

Regarding claim 6, Ducharme lacks subsequently re-packetize the clear payload data to conform to the second data packet format. However, Wasilewski teaches that when transmitting

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data, to conform to a different network protocol than was used when receiving the data, an input card will extract packets from each streams (§§74-75) and an output card is configured to map the packets to the network protocol of the outgoing link (re-packetizing) (§81 & §83). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ducharme to re-packetize decrypted payload data of an incoming packet with a first data packet format in a second data packet format. One of ordinary skill in the art would have been motivated to perform such a modification to conform to a different outgoing network, as taught by Wasilewski (§§74-75 & §§81-86).

11. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ducharme, as applied to claim 1 above, in further view of U.S. Patent 6,647,061 to Panusopone et al.

(Panusopone).

Regarding claim 10, Ducharme discloses converting from MPEG-2 to MPEG-4 compression, but lacks the steps of decompression and recompression. However, Panusopone teaches that in converting from MPEG-2 to MPEG-2 (col. 4, lines 27-28), the steps performed are de-compressing the data (col. 3, lines 51-53) and re-compressing the data (col. 3, lines 53-55). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ducharme to include the steps of de-compressing the data and re-compressing the data. One of ordinary skill in the art would have been motivated to perform such a modification to convert from MPEG-2 to MPEG-4 for rate control, as taught by Panusopone (col. 3, lines 45-46 & lines 51-55).

Allowable Subject Matter

12. Claims 4 & 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and amended to overcome the rejections set forth above under 35 U.S.C. §112.

g. Regarding claim 4, as best understood, the prior art of record fails to teach or disclose, either alone or in combination, receiving selection commands from the secondary terminals, and selecting elementary data streams comprised in the subset according to the selection commands, in combination with the other limitations of the claim.

h. Regarding claim 11, as best understood, the prior art of record fails to teach or disclose, either alone or in combination, receiving messages authorizing transmission of at least one of the secondary data streams to at least one of the secondary terminals, which terminal is arranged to transmit only those secondary data streams to those secondary terminals for which an authorization has been received, in combination with the other limitations of the claim.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Simitoski whose telephone number is (571) 272-3841. The examiner can normally be reached on Monday - Thursday, 6:45 a.m. - 4:15 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MJS



April 17, 2007